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Marcellus Shale: Giant Well Parade In Susquehanna County

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Disclosure: I have no positions in any stocks mentioned, and no plans to initiate any positions within the next 72 hours. I wrote this article myself, and it expresses my own opinions. I am not receiving compensation for it (other than from Seeking Alpha). I have no business relationship with any company whose stock is mentioned in this article.

Cabot Oil & Gas's (COG) fourth quarter results report last Thursday (February 21, 2013) was nothing short of spectacular - positive surprises were many and significant and explain the stock's 11% rally on Friday.

In the context of the North American natural gas supply, Cabot is a relatively small player: The company ranked as #19 U.S. natural gas producer based on net volumes during Q3 2012. Nonetheless, its operating results have material implications for the industry as a whole.

First, the most recent wells confirm that the highly productive dry gas sweet spot in the Northeast Pennsylvania extends well beyond the four-five townships in Susquehanna County that have been initially proven up with production.

Second, the discussion during the call shows that well productivity in the area continues to improve fast, with each new generation of well designs and completion techniques.

Third, the company has a potential to emerge, within just four to five years, as a top five U.S. natural gas producer, likely passing by companies such as ConocoPhillips (COP), BP (BP), Chevron (CVX), and Royal Dutch Shell (RDS.A) in terms of net volumes. According to Zeits Energy Analytics' estimate, Cabot's gross operated production may exceed 3 Bcf/d by the end of 2017, limited only by the pipeline off-take capacity from the area.

2012 Well Results Lead To 14 Bcf Average EUR Estimate; IP Rates Continue Very Strong

Cabot placed in line 41 wells in the Marcellus in 2012, of which 30 wells were tied in during Q4 following the expansion of Williams Partners' (WPZ, WMB) gathering system. Cabot's average well was assigned an EUR of 13.9 Bcf and had an average lateral length of 4,087 feet with 17.6 frac stages.

Cabot indicated well costs in the $6.0-$6.8 million range (which are continuing to decline). This suggests EUR of 3.4+ Bcf per 1,000 feet of usable lateral and 2.2 Bcf per $1 million of well cost. These are perhaps the best metrics for unconventional gas plays in North America. By comparison, Encana's (ECA) recent estimate for the "best of the best" wells in the Haynesville Shale (18 Bcf wells for the total D&C cost of $13-$14 million based on 7,500-foot lateral) translates into ~2.5 Bcf per 1,000 feet of usable lateral and 1.3 Bcf per $1 million of well cost.

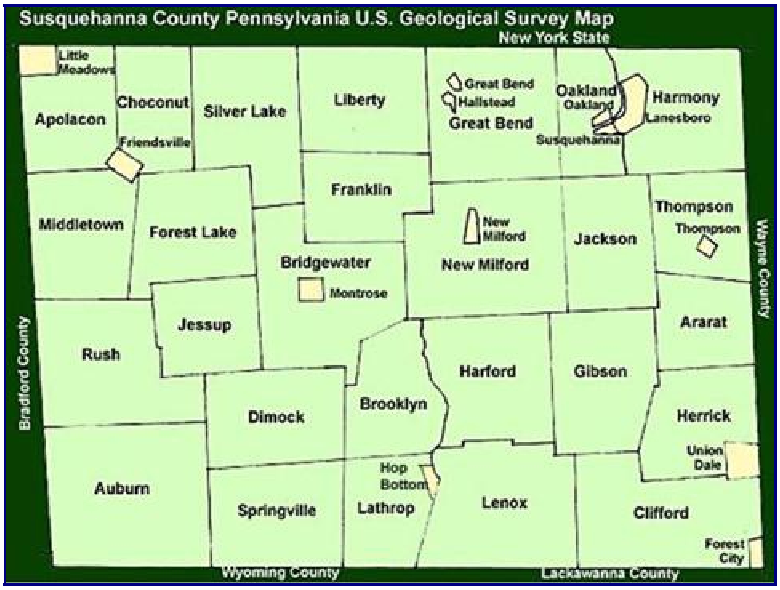
Cabot's most recent wells have demonstrated truly impressive initial production rates. The 30 wells turned in line during the fourth quarter of 2012 had average 24-hour IP rate of 20.1 MMcf/d and a 30-day average IP rate of 16.6 MMcf/d.

While the remarkable productivity of the recent wells has been evident in the production data prior to Cabot's announcement, the "best informed" guidance from the operator with regard to the EUR potential is clearly important (Zeits Energy Analytics' EUR forecast from last week was fully validated).

Well performance may continue to improve further: Cabot is adopting higher-density frac design (200-foot frac stage spacing) for its entire drilling program in 2013.

Cabot Disclosed Positive Early Results Of Eastern Step Out Wells (Gibson Township)

Until recently, Cabot's best wells were located in Dimock and Springville Townships of Susquehanna County.



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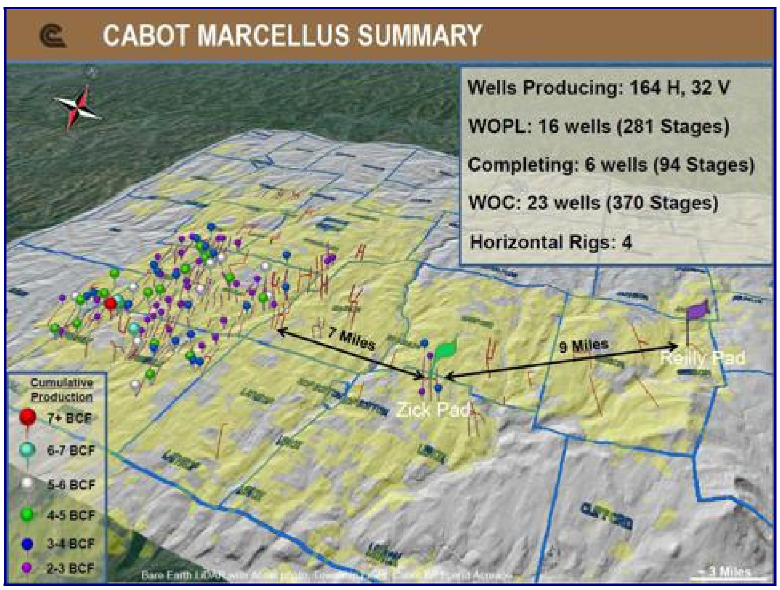
(Source: U.S. Geological Survey)

However, the company's thesis has long been that the highly productive sweet spot is not limited just to the western part of its acreage but extends all the way onto the eastern flank.



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(Source: Cabot Oil & Gas November 2012 Investor Presentation)

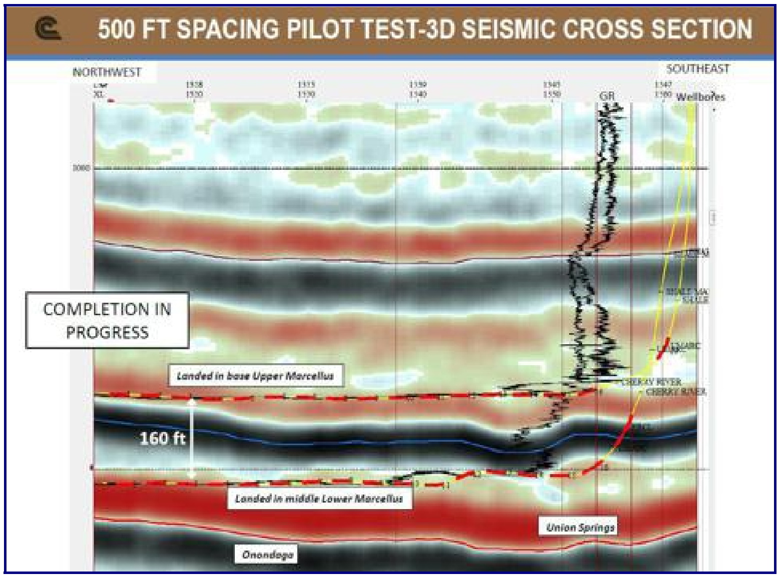
Early in 2012, Cabot drilled and placed in line five wells on the Zick Pad in Lenox/Harford area (the wells are currently producing on compression). The pad is located approximately 7 miles east along the Tennessee 300 trunk line from the closest existing production. During [the call](), Cabot confirmed that the wells continue to perform very strongly and are comparable in terms of expected EURs to wells in the western part of the acreage.

Cabot also announced that it has tested four additional wells drilled another 9 miles to the east of the Zick Pad (the Reilly Pad in Gibson Township), at the far eastern edge of the company's acreage. At this point, there is no pipeline access at the location (expected to be constructed in the third quarter or early fourth quarter of this year). However, based on the flowback and the pressure results, the company believes those wells are consistent in terms of their performance potential with recent completions in other areas. Cabot also made a general comment that early production results from some of the pads recently placed in line in the eastern part of the acreage "fall right on our curve for the average results we've seen on our 2012 program."

The results from the Zick and Reilly delineation pads, as well as step out wells in the north, suggest that the highly productive Marcellus sweet spot in Susquehanna likely extends over the larger part of the County and therefore is much larger in size than has been previously known.

The Inventory of Drilling Locations Supports A Decade Of Drilling

Cabot mentioned that it sees at least 3,000 future drilling locations on its "couple of hundred thousand acres" in Susquehanna County. The location count includes staggered wells, at least on a portion of the acreage, with laterals landed in the Lower Marcellus and the Upper Marcellus and separated by 500 feet (a pilot well pair drilled by Cabot in 2012 has so far shown positive results).



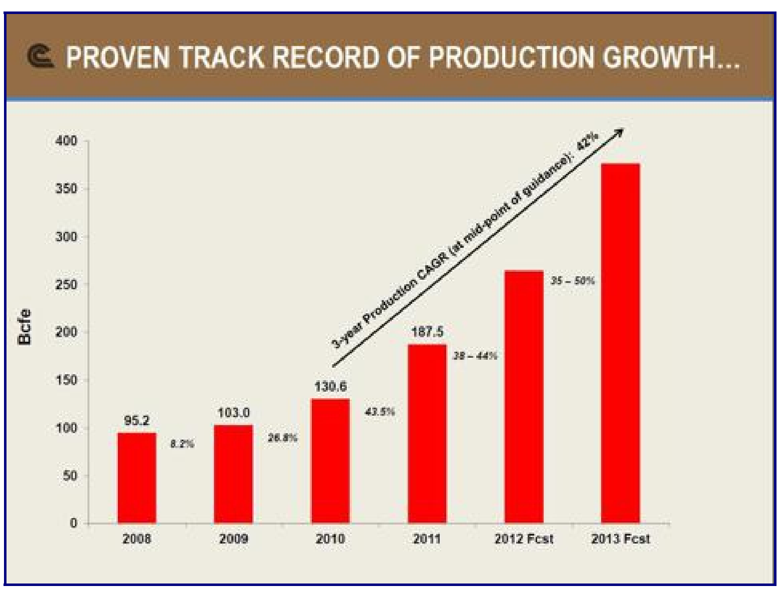
(click to enlarge)
(Source: Cabot Oil & Gas March 2012 Investor Presentation)

Cabot will also test down-space opportunities in the lower Marcellus.

Even assuming that a high-graded inventory of most economic drilling locations would include only half of the 3,000 potential wells mentioned by Cabot, it would still take the company over a decade to fully develop the acreage, assuming rig count ramping up to ten rigs in four years.

40%+ Growth Guidance in 2013 Reflects Cabot's Returns On Investment At $3.50/MMBtu Gas Price

Cabot reaffirmed its companywide production growth target of 35% to 50% while spending "within cash flow." As the majority of Cabot's production will continue to come from the Marcellus, the growth rate reflects the type of economic returns the company is being able to generate in Susquehanna at the corporate level (the budget is based on $3.50/MMBtu price for natural gas and $90 per barrel of oil).



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(Source: Cabot Oil & Gas November 2012 Investor Presentation)

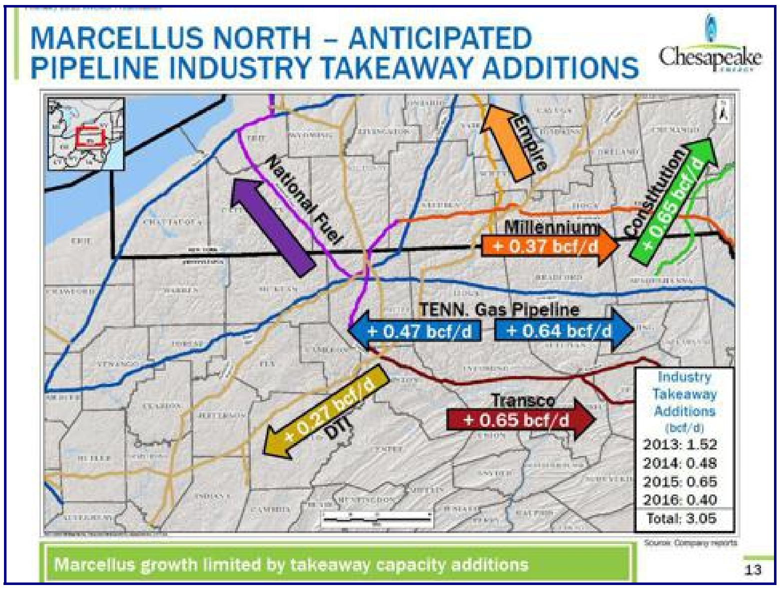
Cabot's production growth remains restrained by off-take infrastructure availability. The company still has close to 40 wells in its backlog - an equivalent of approximately half a year of drilling activity at its current pace (including 405

stages which are completing, cleaning up or waiting to be turned in line, along with 282 stages waiting to be completed). Production in the first part of 2013 is expected to stay fairly flat as compression and gathering additions on the Williams Partners system are not expected until later in the year.

Cabot's 5-Year Plan Calls For Significant Volumes Growth That May Be Material To The U.S. Supply

In its long-range plan, Cabot is using a relatively conservative gas price forecast, which starts out at $3.50/MMBtu in 2013 and is capped out at $4/MMBtu. Cabot added an additional drilling rig in December, giving it a total of 5 horizontal rigs in the Marcellus, and plans to drill 85 wells in 2013. The five-year plan calls for a gradual ramp up in the rig count which is expected to reach ~9-10 rigs in 2017.

Cabot's current production from Susquehanna is at ~1 Bcf/d gross. Further growth will be largely determined by the company's ability to secure additional transportation capacity. The most significant single addition will be 0.5 Bcf/d (plus future expansions) on the Constitution Pipeline which is expected to be placed in service early in 2015 (Cabot owns a 25% interest in the project). Overall, ~3.1 Bcf/d of off-take capacity expansions have been announced for the next four years in Northeast Pennsylvania, and some additional transportation solutions are likely.



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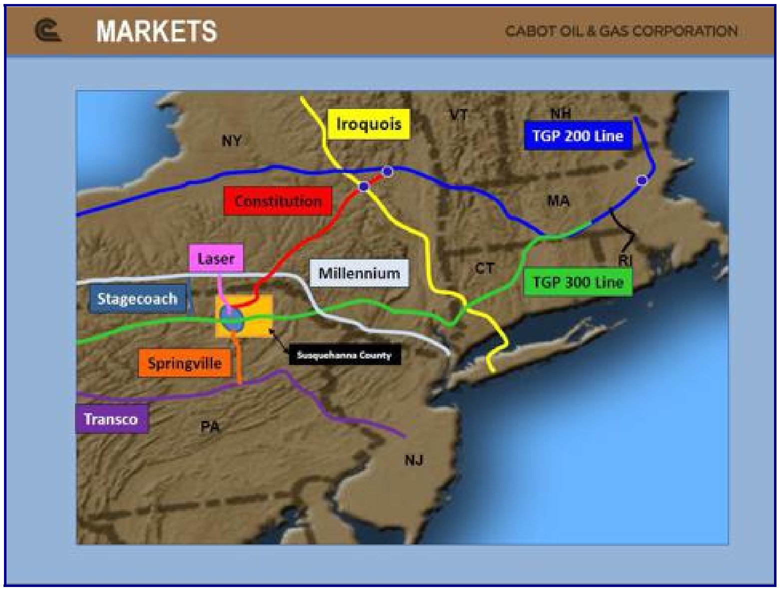
(Source: Chesapeake Energy February 2013 Investor Presentation)

Based on the rig count ramp up indicated by Cabot, the company's gross operated production from Susquehanna could reach 3 Bcf/d by the end of 2017, based on Zeits Energy Analytics' analysis. Given that production by other operators in the area is also likely to show strong growth, transportation will remain a major constraining factor for the foreseeable future.

Long-Term Supply Contracts Becoming Part of Marketing

Cabot commented that it has seen market dynamics change a lot in the Northeast region. Currently, the company has a significant amount of its production sold as far out as 5 years and even 10 years. As an example, Cabot has entered into a long-term contract to supply 100 MMcf/d beginning in 2015 for 15 years. The company is also seeing lots of interest from the power sector and has received inquiries from customers who buy natural gas off the Iroquois Pipeline, the Tennessee 200 line that goes into the Boston area, and customers in Canada.



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(Source: Cabot Oil & Gas March 2012 Investor Presentation)

LNG Exports May Become A Reality For North East Region

Cabot mentioned that it has taken firm capacity on a pipeline with a view to feed natural gas into Dominion Resources' (D) proposed 0.75 Bcf/d Cove Point LNG export terminal located on the Chesapeake Bay in Lusby, Maryland:

> We have taken out some capacity last year and early this year that will enable, right now, about 75,000 a day of our production to reach Cove Point. And so we have firm transport in place, and are staying on all the short lists for possibility of supplying a significant amount of gas to the export facility there.

With recent well results in Northeast Pennsylvania suggesting continued rapid growth of supply from the area, the LNG export solution becomes very compelling. This increases the likelihood that the Cove Point project - which is almost ideally situated to provide an outlet for the Marcellus gas - will add to the growing list of U.S. LNG export projects with high probability of reaching completion.

Strong Read Through To Other Operators

Cabot's results have a positive read through to several other operators with acreage in Susquehanna County. In addition to Chesapeake Energy (CHK), those include Southwestern Energy (SWN), WPX Energy (WPX), Chief Oil & Gas (private), and Carrizo Oil & Gas (CRZO).

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